

GEORGE ENGELMANN
BOTANICAL NOTEBOOKS

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Chinensis

10

1871.

S. ANTHONY GOLDSCHMIDT, A. M., E. M. 142 West 21st St.. New York.

Chemical Assistant to the State Inspector of Fertilizers, Savannah, Ga.

JOHN GORDON, JR., E. M. 313 East 58th Street.

WALTER PROCTOR JENNEY, E. M. Fairhaven, Mass.

JOHN LEO LILIENTHAL, E. M. 230 West 25th Street.

San Francisco, Cal.

EDWARD MOORE PARROT, E. M. Bedford, Pa.

Bedford Co., Pa.

PIERRE DE PEYSTER RICKETTS, E. M. Elizabeth, N. J.

Assistant in Mineralogy, School of Mines, Columbia College.

GEORGE WASHINGTON RIGGS, PH. B. Baltimore, Md.

In Europe.

GRACIE SAVYR ROBERTS, F. M.

88 Union St. Philadelphia, Pa.



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LIONEL ROBERT NETTRE, E. M. Brooklyn.

In Europe.

HENRY NEWTON, A. B., E. M. 26 West 21st Street.

Assistant in Geology, School of Mines.

GEORGE HOWLAND PARSONS, E. M. Flushing, L. I.

WILLIAM PISTOR, E. M. 946 Second Avenue.

Assistant in Drawing, School of Mines.

WILLIAM BLEECKER POTTER, A. M., E. M. St. Louis, Mo.

Professor of Mining and Metallurgy, Washington University.

JOHN COOPER RANDOLPH, A. M., E. M. 87 Washington St., J. C.

ALBERT

HENRY



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J. chiaensis

June 23 1874

Haege & Schmidt

miss 1874

x 2



scales in 2's

x 2



seeds never rough
1 or 2 with grooves
for the oil receptacle



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Deutsche Apotheker.

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APOTHECARY,

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Juniperus *osteosperma*

Febr 17 1874

berries green with white bloom
immature

Santa Lucia Mountains

coll Febr 7th 1874 by J. W. W. Hayes
of San Luis Obispo

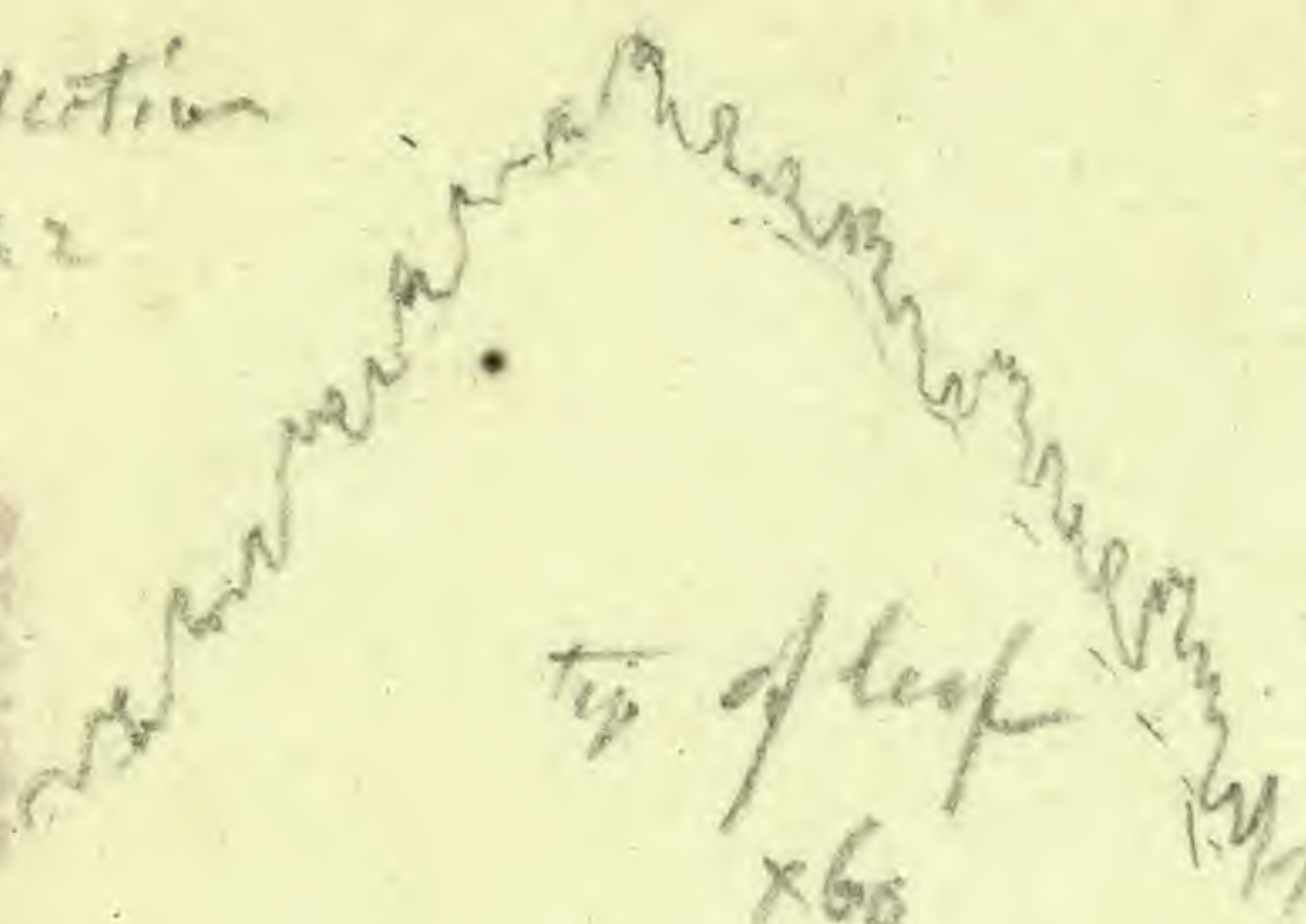


x 2



vertical section

x 2



tip of leaf

x 60

albumen firm
with a cavity for embryo
but no embryo formed yet

scales on berry
rather irregular

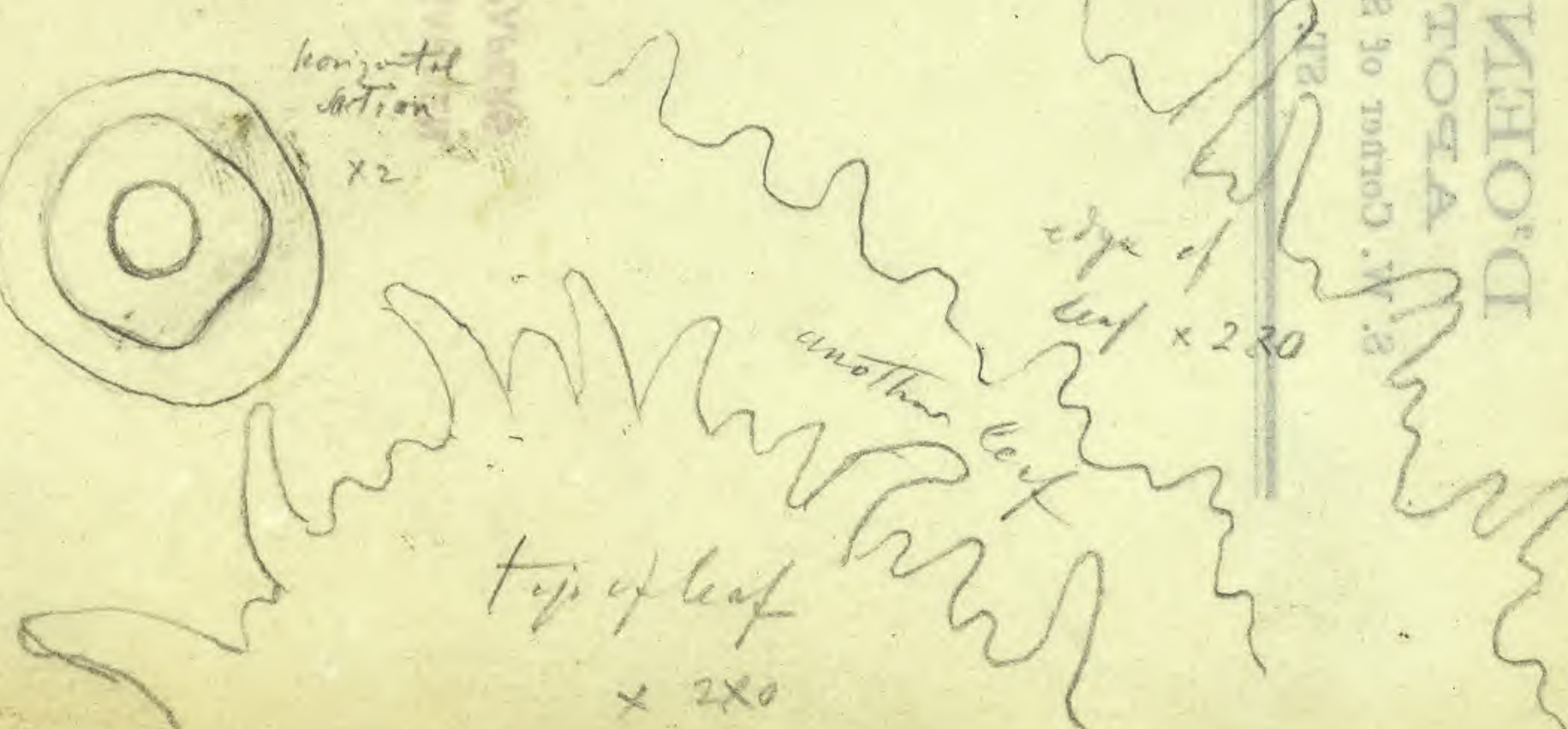


seed x 2



horizontal section

x 2



edge of

leaf x 200

another leaf

tip of leaf

x 200

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M. COLLECT OF SECOND & MULTIPLE SPECIES
ON JUNIPERUS
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Janipa osteosperma

Jan 7 1874

berry 11 x 13 mm

State Survey 742 New Idria, July
from 2 seeded berry
(rare)

berry x 2

x 2

x 2

x 2



4 cotyledons

(no they are 4)

2 seeds, with the 3 white triangles
divided between them

scales on berry 2 x 3
small green tips, no knobs
sometimes leaves of peduncle & scales of berry - pairs

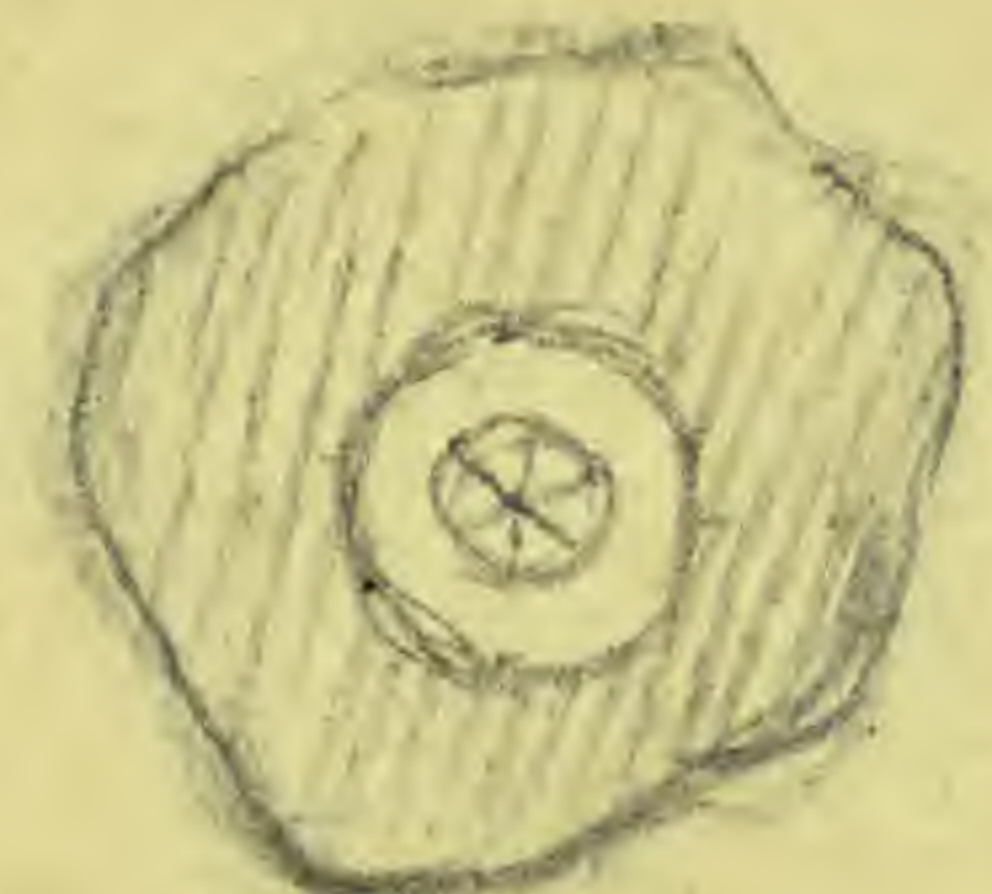
sect. of alb
& embryo x 10



tip of seed
x 2



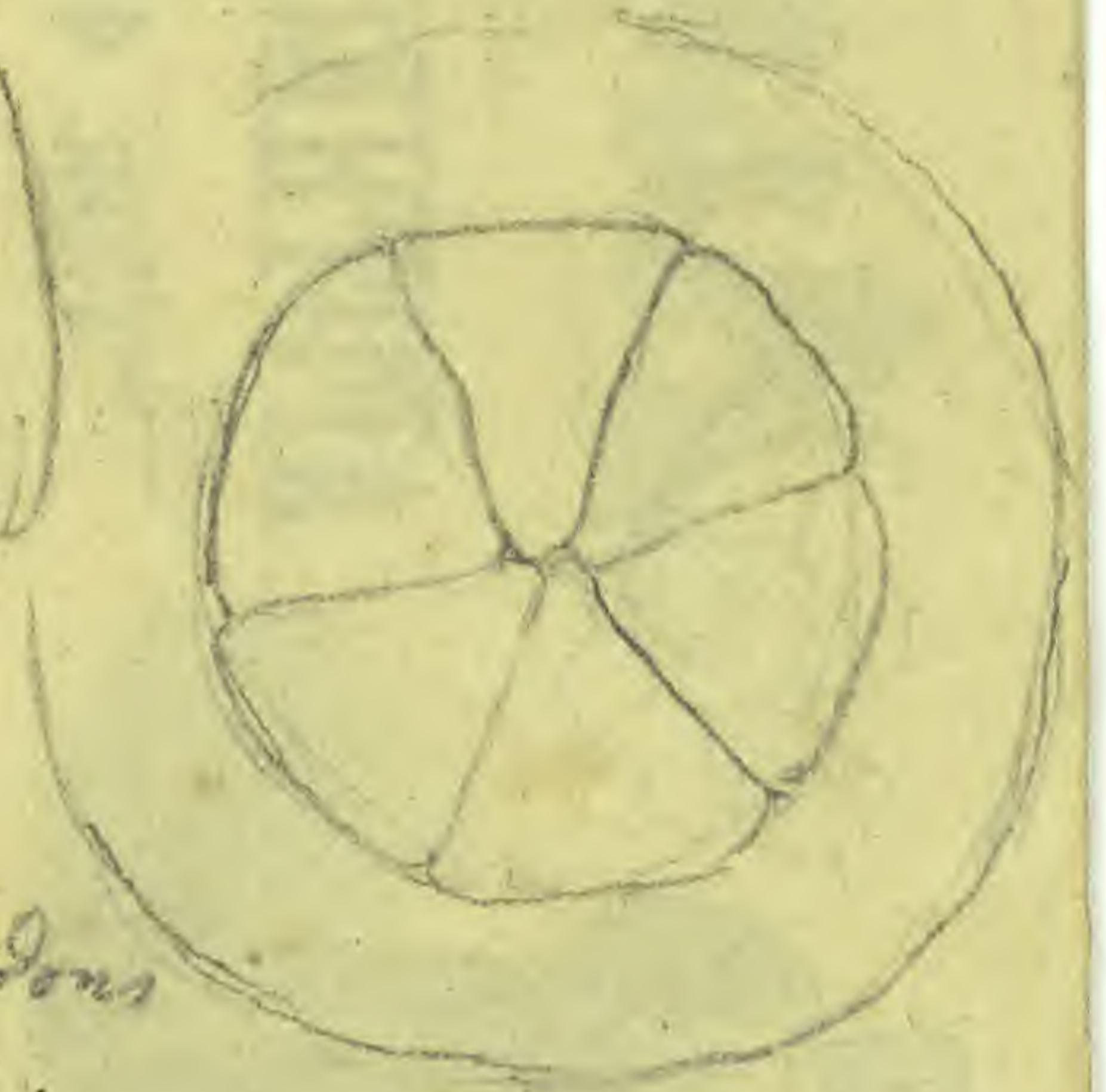
base of seed
x 2



seed section
x 2
6 cotyled.



x 2
6 cotyledons



white scar on base of seed
corresponds to 3 basal
leaves

seed irregularly 6 angled

berry 6-7 lines
seed 1/2 - 6 line long



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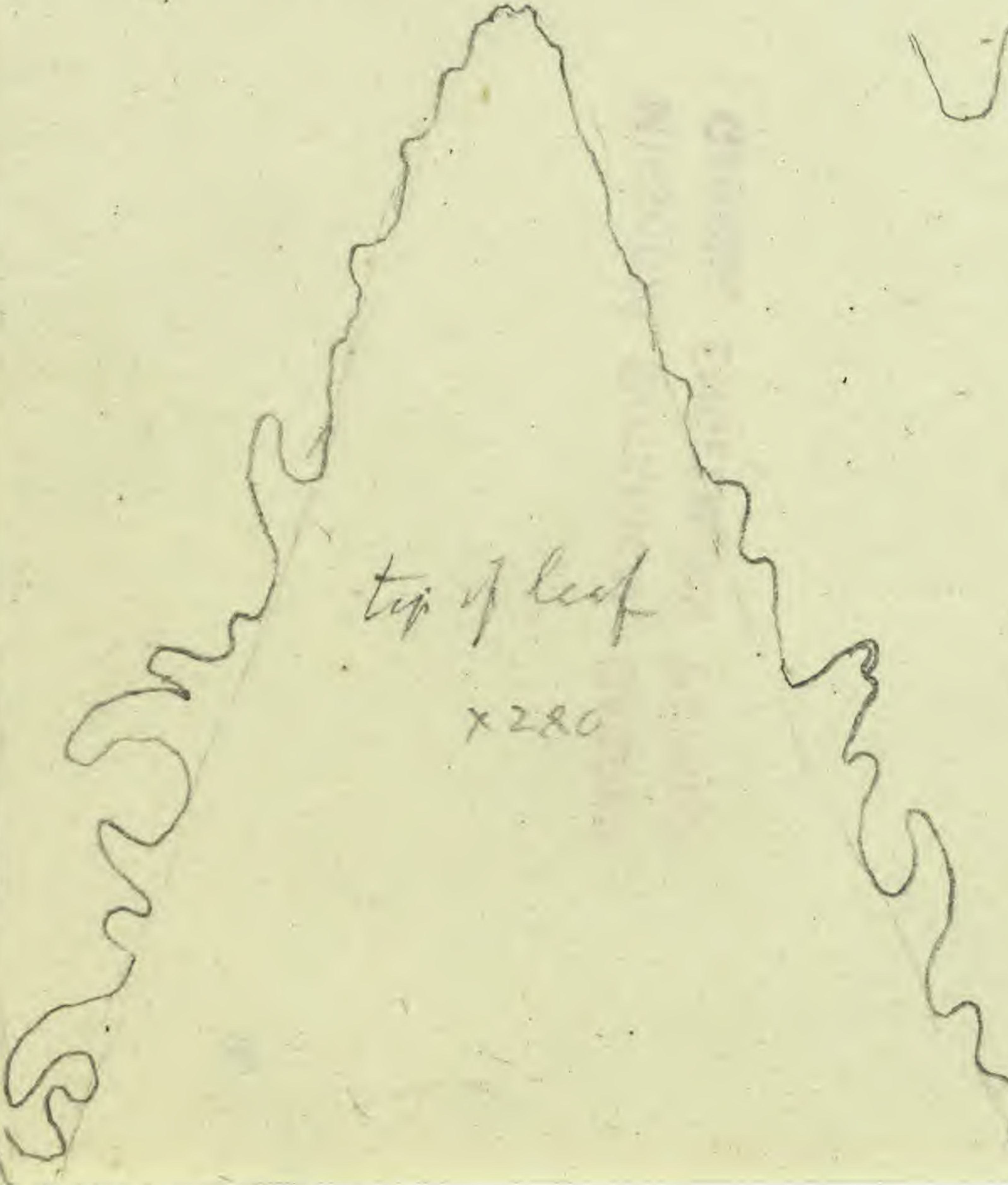
J. osteospermum

March 12 1874

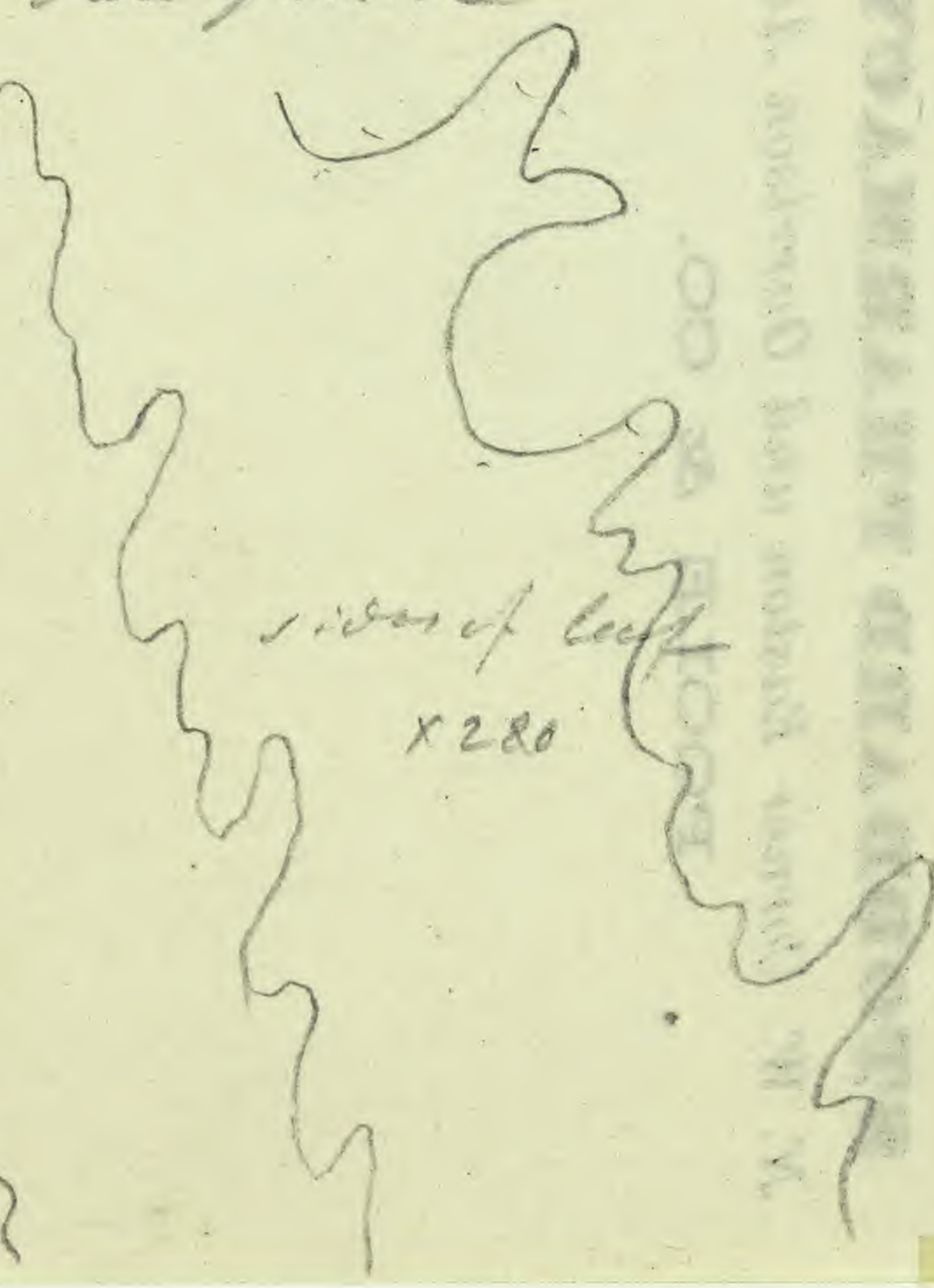
Calif. Stet Survey 111.

young shoot

San Gabriel



top of leaf
x280



side of leaf
x280

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W. H. HAYDEN DRAWING



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No 792 State Survey Juniper osteosperma
State Survey - California

Dec 14 1873
New Iberia, July

Branchlet
with different
leaves in 3'

x10

This branch belongs
to No 110

edge of leaf

edge of leaf
x280

print of leaf
of 110

x60
showing serratures

lowest pair of leaves
of branch lateral
all others in 3'



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State Survey

126

Juncus ostenosperma

Dec 13 1873

California

San Gabriel January 10th 1861

Jan 16

'74



tip of leaf
x 60

edge of leaf x 280

female plant in bloom

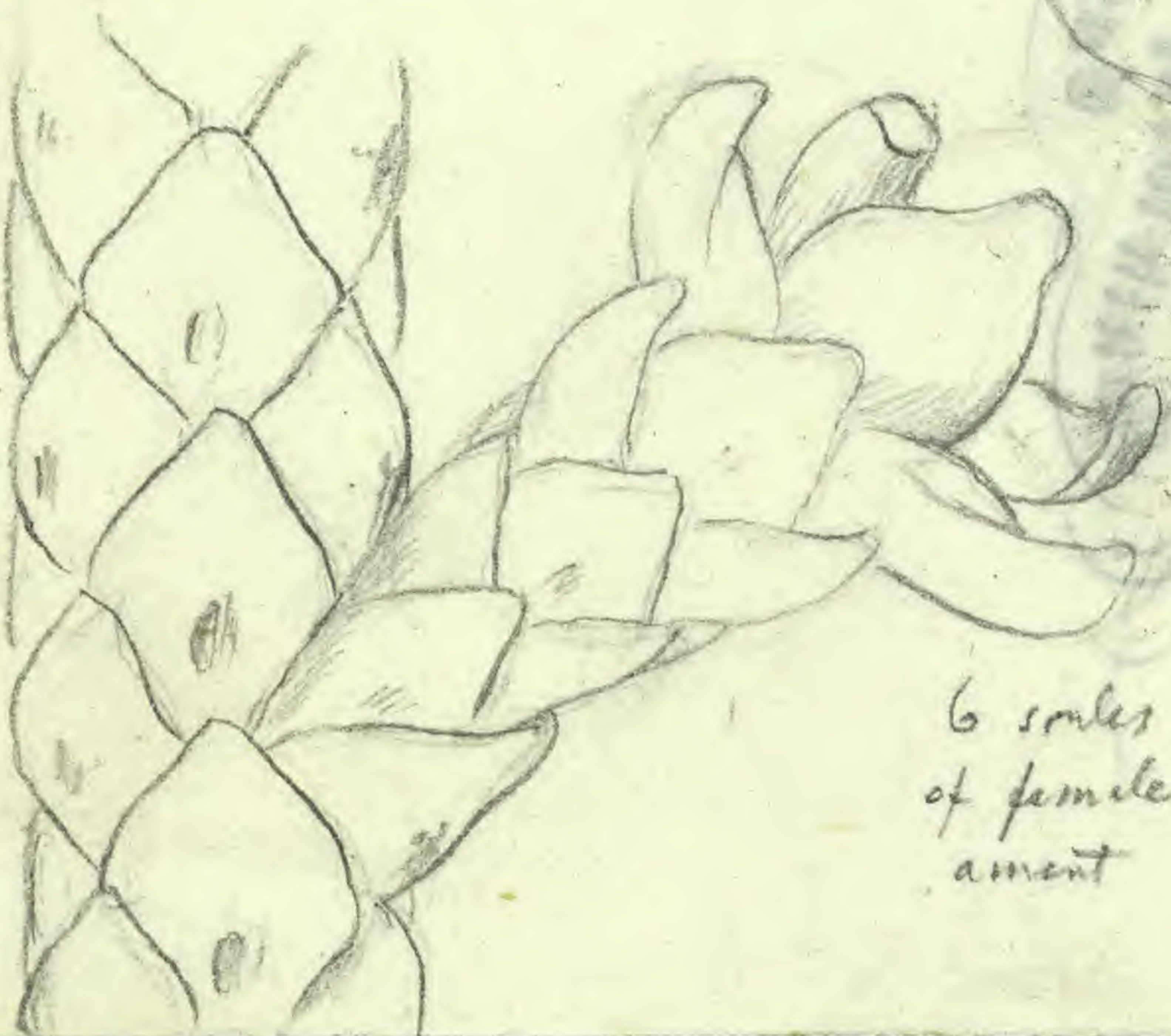
No 127

x 2



branched x 10

x 2



*squamis
acutiusculis
patulis
inflexis
purpureis*

6 scales
of female
ament

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HERBARIUM OF THE
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Leitch & Corlies

DRUGGISTS

South-west
Corner Fifth
and Market
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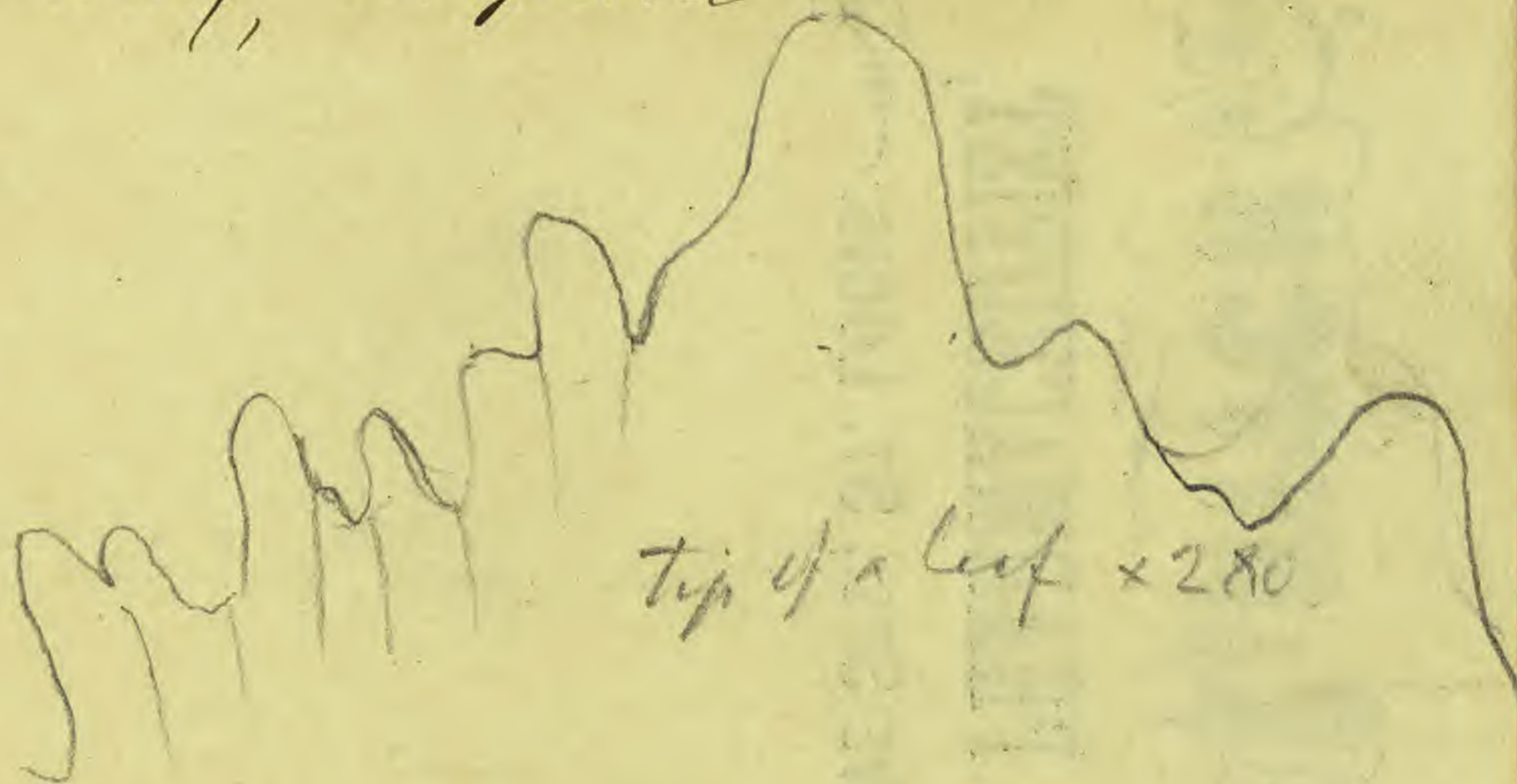


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Junip. osteniperma

Jan 6 1874

112. California State Survey, San Gabriel



Tip of a leaf x 280



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Juncus asclepias

Dec 12 1873

immature Pollen $\times 415$

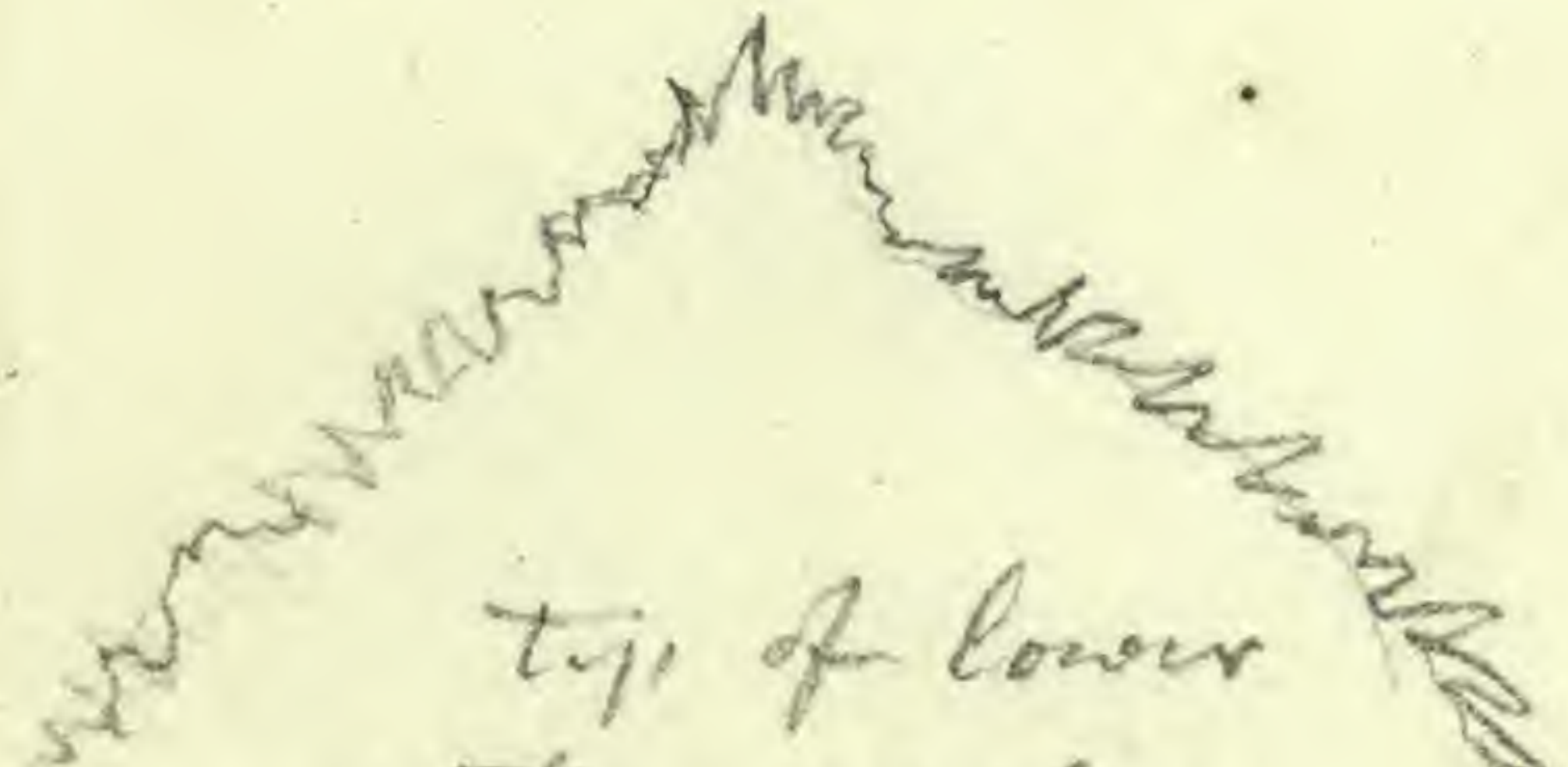
State survey Calif. 840

Monte Diablo Sept. 25 1861



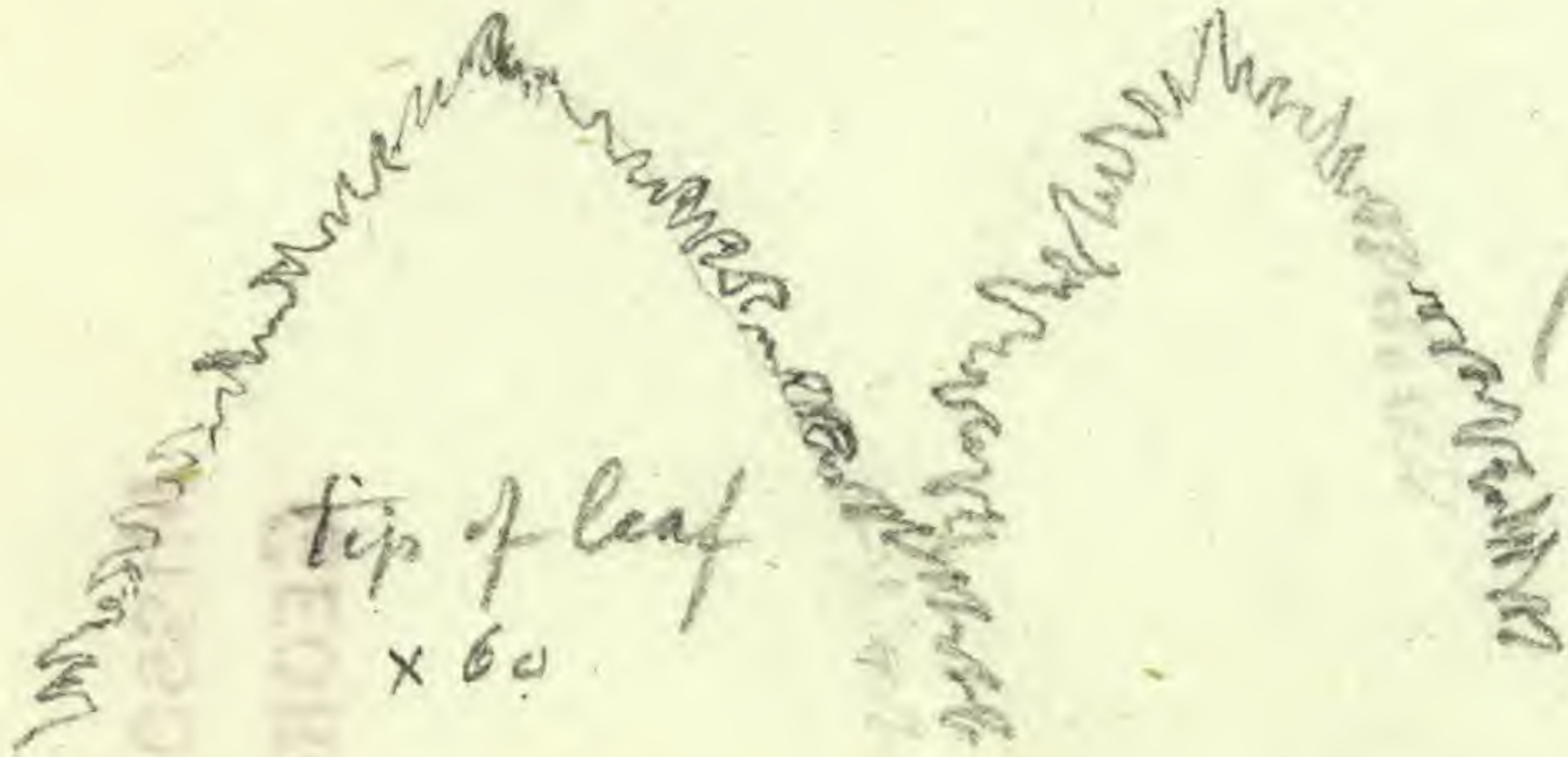
lockhead

$$\frac{10}{415} = 0.024$$



tip of lower
anther scales

$\times 60$



tip of leaf
 $\times 60$



edge of leaf

$\times 280$



$\times 10$



leaf
 $\times 10$



3

4 cells

immature

σ^3 only = 3

$\times 10$

2 - 6 or 7 (even σ)

anther cells attached to the stipe

tip of scale

$\times 280$

Jan 8 1874

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Juncus osteospermum

Feb 20 1876

Fremont's 2^d Expedition 1843

(no number nor locality)

x 2 immature fruit



top of leaf x 280

fruit and pedicel
with scales in 2^s

Juncus osteospermum

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Juniperus osteosperma

Febr 20 1874

Bear Mountain, Maniposa,

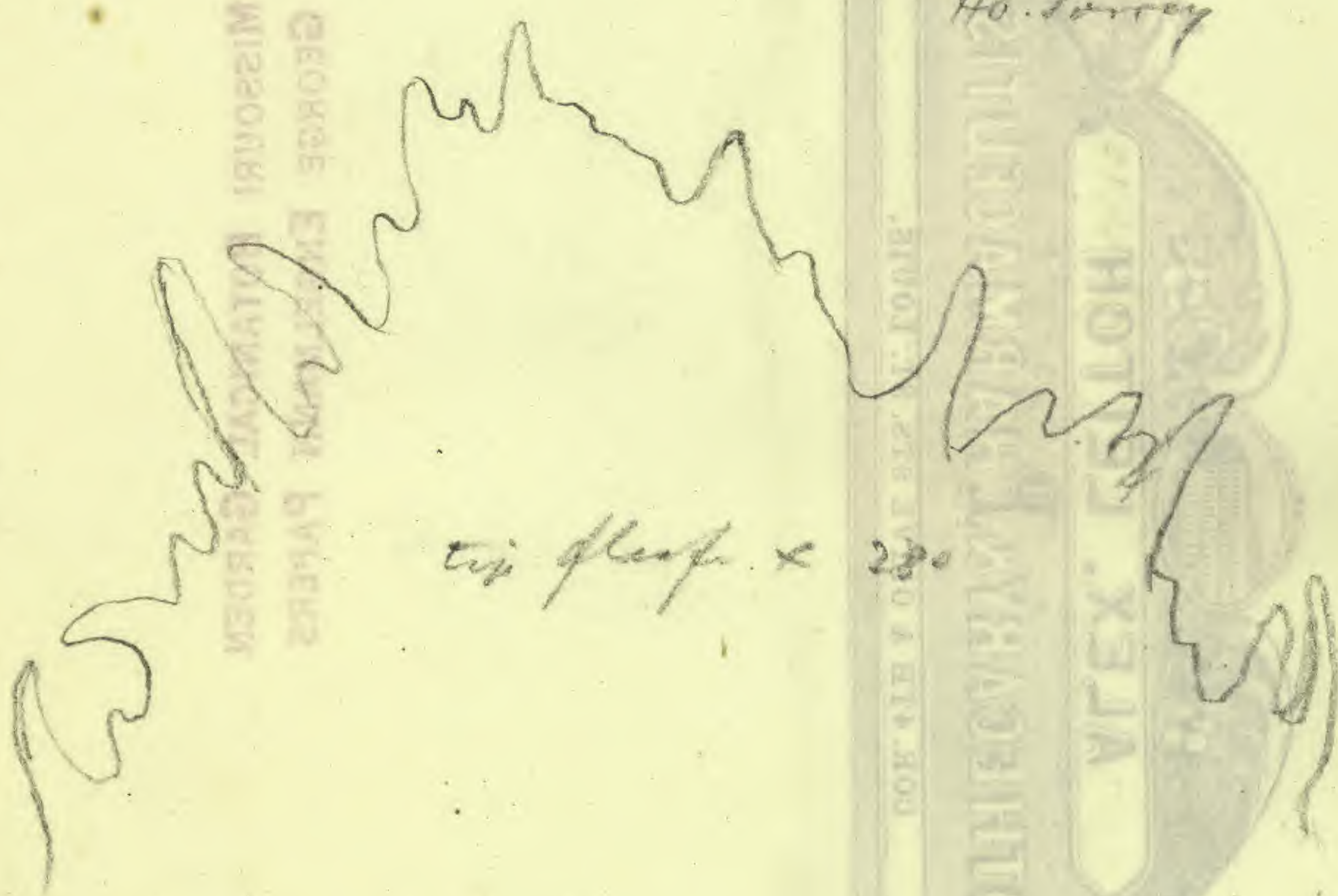
H. Torrey Aug 1865

immature

x2



scales - 3²



tip of leaf x 200

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H. Torrey



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Dunfren ostrospenna

Jan 1874

Zuni to Bigelow Whiff. Exp.

1853

H. C. Torr



x2



x 280



x10

April 10th 1874

C. F. BRADY, M.D.



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Junip.
Mentzelia Dillen

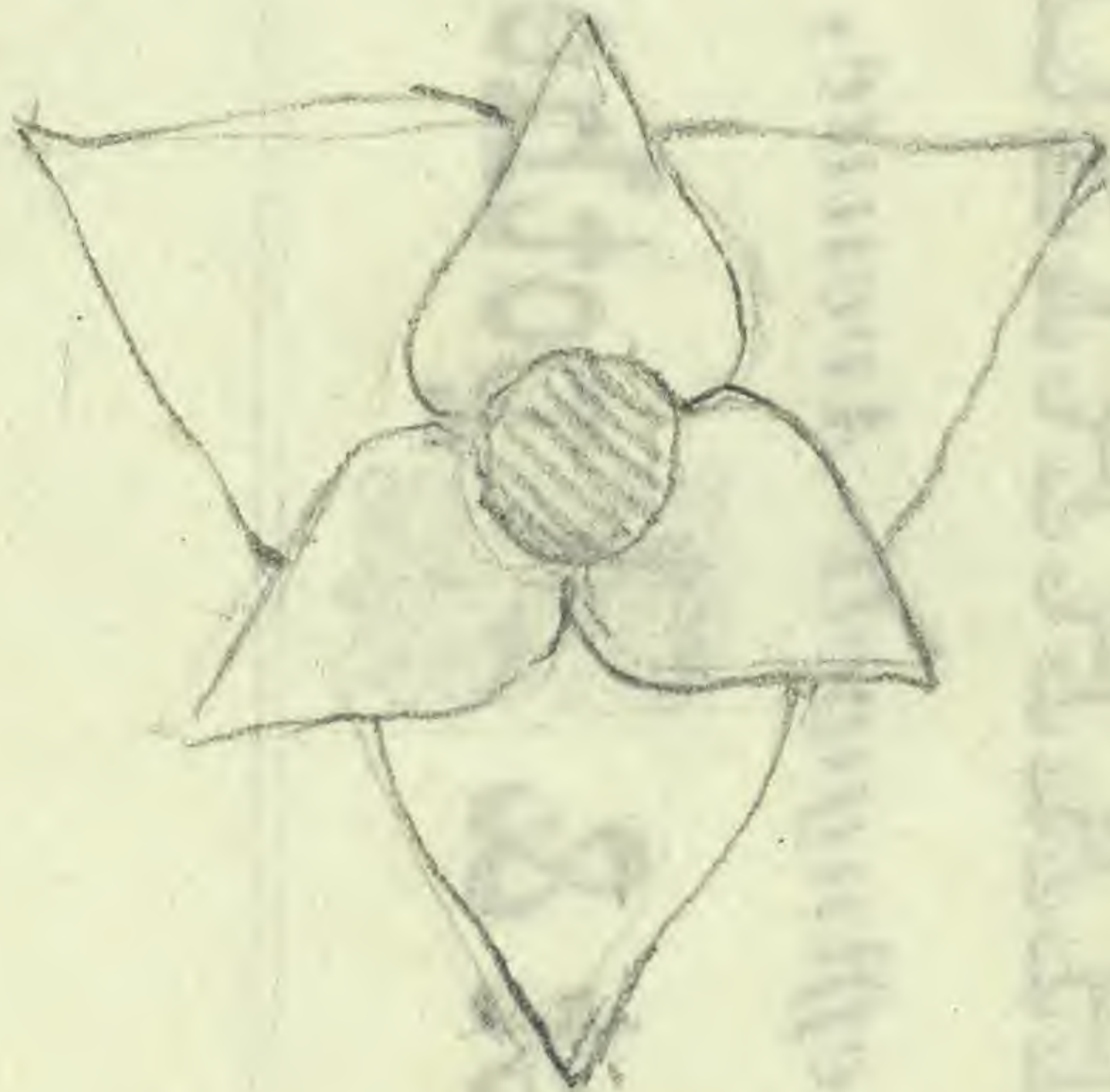
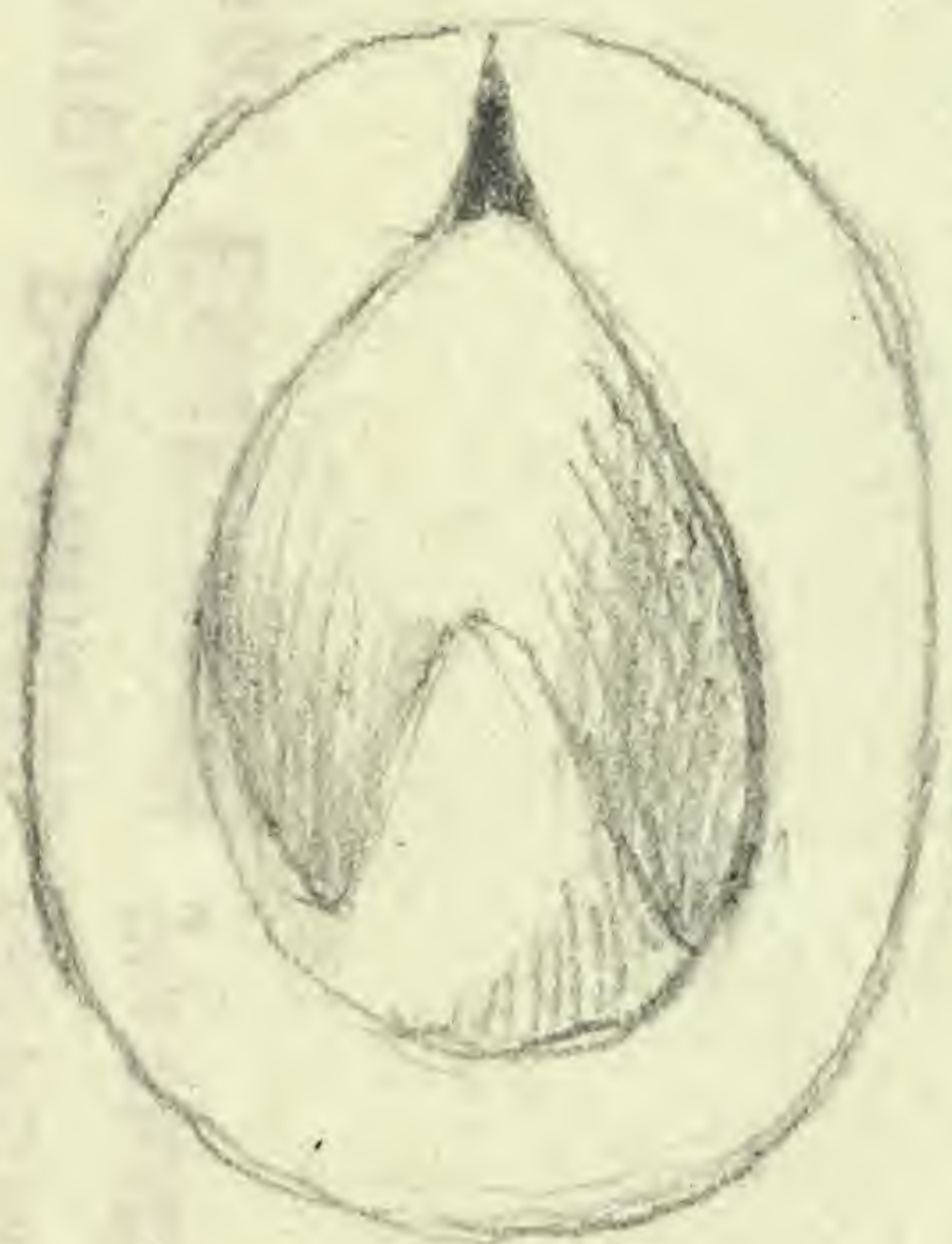
240

Jan 16 1874

x 2

base of fruit x 10

green tips of
scales...



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Juncipus

Aug 29 1875

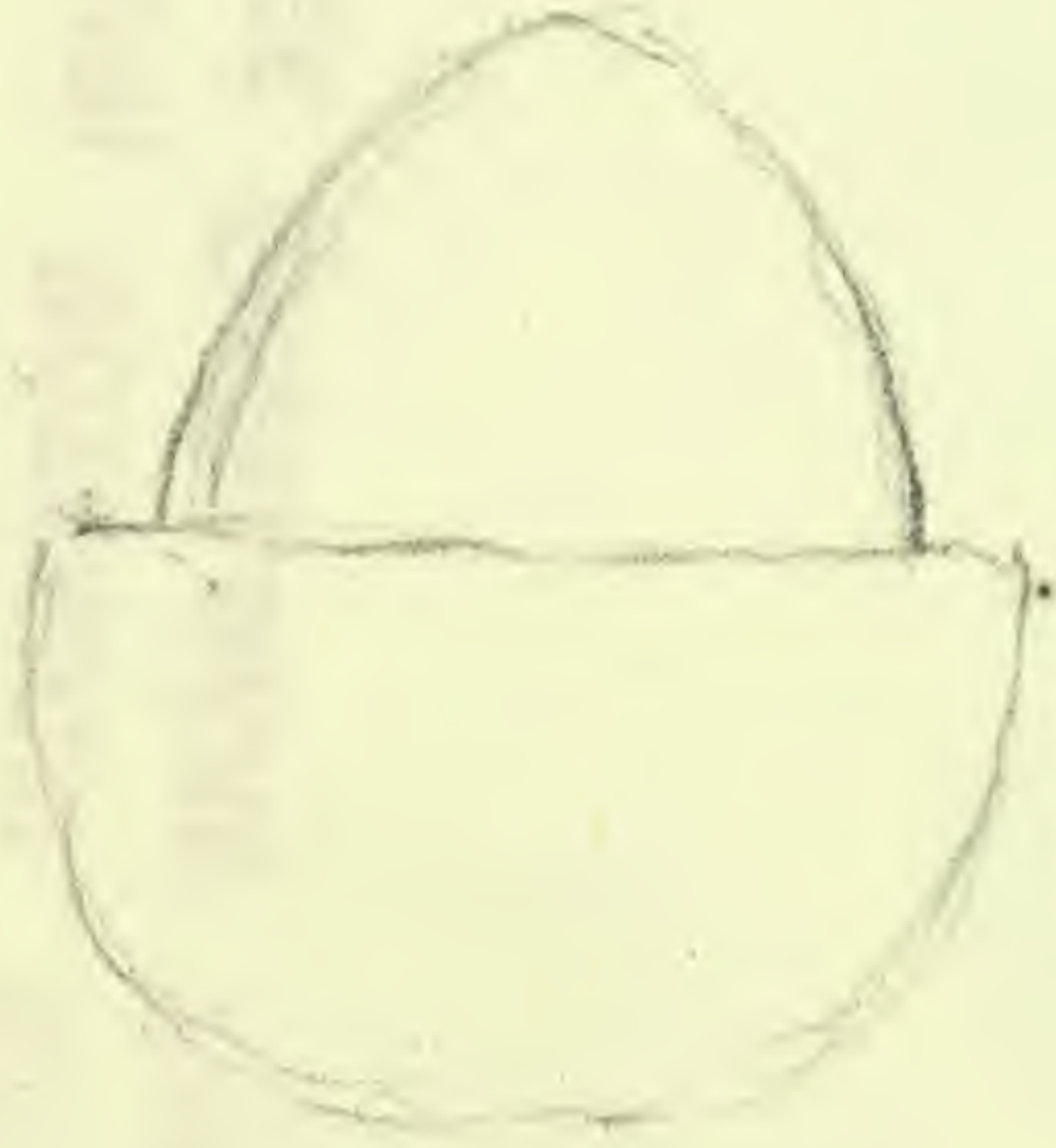
Guadalupe Island

J. Palmer 1875

C. F. WOODMAN, W. D.



x 2



W. D. WOODMAN & J. PALMER
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State Survey 110

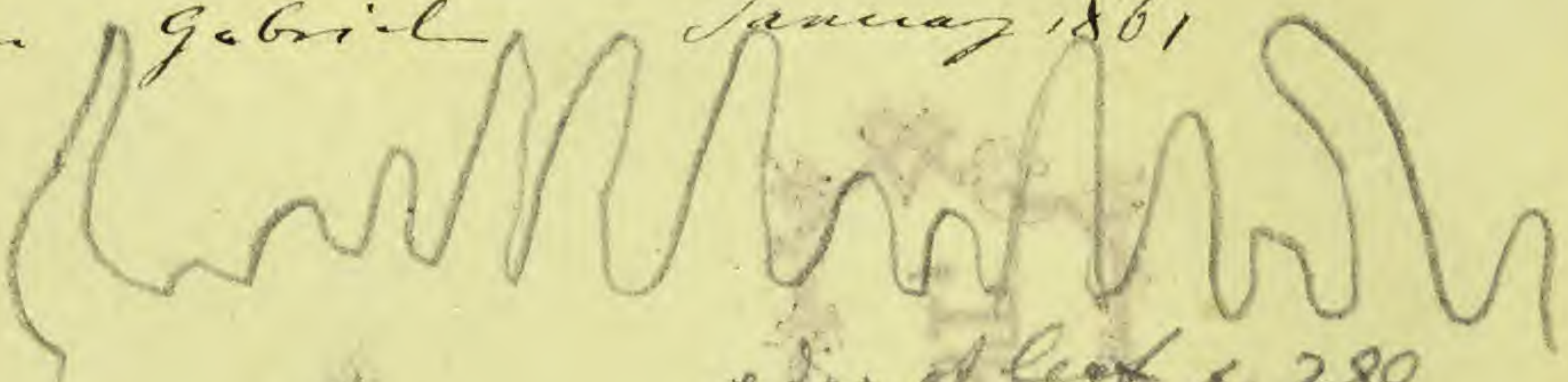
Junca octosperma

14 Dec 1873

110 California, San Gabriel

January 1861

x 10



edge of leaf x. 280



lateral view of scale with stipule



open anther calyx

x 10



branchlet leaves 3^s

scales in 3^s

scales in 11^s

effete ♂ aments

scabed

edge of scale x 280



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its cost already, and not only myself but others that have followed its teachings. My brother who was quite out of health until he read your journal is very much better by following the hygienic method of living.—MRS. MARY CRANE.—We are a family of three, my husband, little boy of four years old, and myself. We are trying to live as plainly and healthfully as we can, mostly on grains, vegetables and fruit, with a little meat. We have very good health ever since we came here to Missouri. If any of us is a little sick we do not have any use for a doctor, as I do the doctoring. We have a beautiful home on the prairie, and very pleasant neighbors. It almost makes me sick to think of the way some of them live, depending on hot soda, biscuit, fat bacon and strong coffee three times a day, and when they get sick running right off for a doctor.—MRS. MARY S. WYANT.—I am a reader of the Laws of Life, have been highly interested in it, and have got a great deal of information from it which I value highly. I have not used any medicine in my family since I commenced reading it, and I think we are all better off without it.—MRS. SARAH J. WOOD.—Thanks to my Heavenly Father, through your blessed teachings I have been able to live over two years in health, better than I have ever known before, without even one drop of drug poison. I feel like shouting praises to God when I contemplate these great blessings which through you he has sent to me and hundreds and thousands of other poor sufferers who are now rejoicing in health and happiness.—S. A. CUTLER.—I do not like to miss a single number of the Laws. I have received great benefit from its teachings.—S. A. BEARD.—We have been subscribers to your Laws of Life for several years, until the present, when we thought as a matter of economy we would do without it. But we find that we cannot afford to be without it, therefore I inclose subscription price.—M. C. WITHINGTON.—I wish I could tell you how much I prize the 'Laws' and how much help it has been to me. I received my first ideas of taking care of my health from a few copies,—"seeds scattered by the wayside"—which you sent to a cousin of yours in whose family I was living. They came to me as a word in due season. Till then I had a blind idea that sickness and death were "Providences of God" to which it was our duty to submit; but your paper opened a new field of thought, and led me to study the laws of life and

scarlet fever. Not one of us had a relapse. Our neighbors thought she would surely kill us, and said we must have constitutions like horses, as the disease was then as much dreaded as small pox. Seven years ago I was married. My husband was sick all over; had the heart disease with a great many other complaints. He had lived in the West Indies eight years and almost destroyed his health there. By right living, or I may say trying to leave off old habits, and eating healthy food and using water, he has in a great degree regained his health. I have treated him for fever and ague since, contracted in the West Indies; for typhus fever at three different times; for inflammation of the bowels, and cholera, using no medicine. I have cured my eldest boy of bloody flux; very bad; and of inflammation of the lungs; and I treat my baby in all his little sicknesses with water with entire success.—MRS. MOSES E. RICE.—I must compliment you on the Laws both for matter and appearance. It must commend itself to every sensible person. I take a good deal of pleasure in presenting it to the public. I trust Dr. Jackson will have strength to labor until his glorious system is thoroughly established.—MRS. F. M. BARCLAY FELCH.—Dr. Jas. H. Stewart induced us to take your Journal and we would not now stop it if you charged \$10 a year for it.—A PRESBYTERIAN MINTSTER.—I have at last secured my sixth subscriber to the Laws of Life. I have been pleased to learn lately that some young friends to whom I mailed your paper a year ago, inviting their attention to it, have become permanent subscribers. I sometimes feel that I have done but little in the cause of health-reform, yet I am often surprised at the increase of water-treatment and the use of gems which comes to my knowledge, and which is almost always traceable to the Laws.—MRS. E. H. STRONG.—I am no longer alone in my interest and efforts for reformation in all habits of living. There are a number who wish to know more about it, and a few who join me in hygienic fare. I have adopted the American costume for home wear, and find it just what I need. I am now enjoying my liberty of dress, as well as the two meals a day.—MRS. L. A. LEDYARD.—Several weeks ago my niece, a young lady, came to visit me from an adjoining county. She was in very poor health, and told me none of her friends thought she could live long. Her appetite was very poor and she was very thin in flesh. She was a great tea-

1 J. California

Contained 1-26



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Alas! I found this to be true prophesy. That winter I exemplified the dying words of Webster, "I still live,"—and nothing more; and the first of the summer found me on my return to the Hillside, "willing," as the Doctor expressed it, "to stay till he said I might go, if it was five years." And stay I did, not five years, but fourteen months, growing (as I was requested to do,) "fat, fair, and forty-fied," every day, and still am continuing to do; so that persons who meet me now, laugh quite heartily at the idea of my ever having been an invalid.

That I *keep* my health, I attribute to my adherence to the principles of simplicity and moderation breathed in with the very air of the Hillside. The world is better to us women, than we are to ourselves. It seldom places us in positions, (unless we be sewing women or teachers, of which latter I also know something,) where there is a positive necessity of our being seriously over-taxed, if we only will to live right. I speak now for single ladies particularly; I dare not speak for married ones, not knowing the peculiar trials under which they labor as wives, mothers and housekeepers.—Though it does seem to me, that even the over-taxation of

agine that when we shall appear before Him, it will suffice to answer like the man who when asked what he had been doing during the great Revolution replied, "Nothing; I have lived."

AMELIA P. BUTLER.

Encouragement to Right Living.

WE have received and read and studied Dr. Jackson's book, "How to Treat the Sick Without Medicine," and in a few cases have applied its teachings, and are highly pleased with it. Now I send for the Laws of Life for another year. I should have begun at the beginning of the year, but had just moved our home and there was a house to build, and many things to take the money. But now I have earned five dollars of my own, and, as my husband is a believer in a woman's right to spend her own earnings as she chooses, I must have the Laws. It is a household need. So the needful dollar and a half goes with pleasure. Now I must tell you why I want your journal. It is that when we are tired and weary with the sorrows, vexations and disappointments of life, we may read it that our lives may be brightened and benefited.—SARAH J. SASSEEN.—I could say a great deal in favor of your excellent book, but I will not encroach upon your time, as I should tell the same story of hundreds of others who have followed your directions in regard to living and received great benefit therefrom.—M. A. PIERCE.—I must tell you how nicely my husband is getting along. He is getting stouter every day. I was surprised last spring, when he put on thinner pants and vest, to see how much larger he is round the waist. The straps on his pants and vest had to be let out two or three inches,—and you are the one, doctor, who has saved him from a dyspeptic's doom. You have been the means of making us a far happier family than we were strictly to the two-

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flower x 10

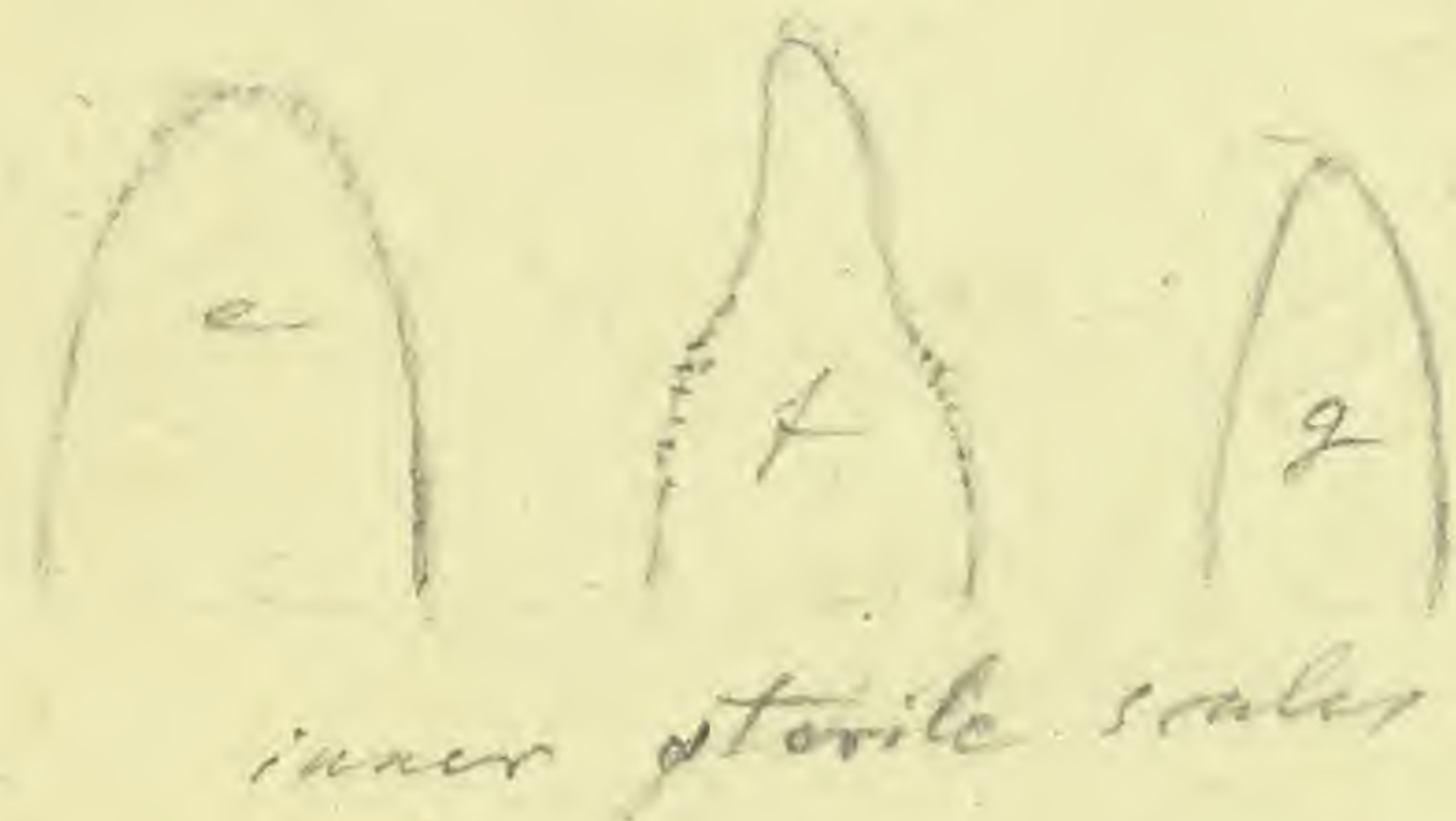
Juniperus Californica
Pursh var. *leg.*

Dec 16 1878



terminal leaves
and carpels

x 10



scales in threes and
many flowers
in threes

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HERBARIUM

11



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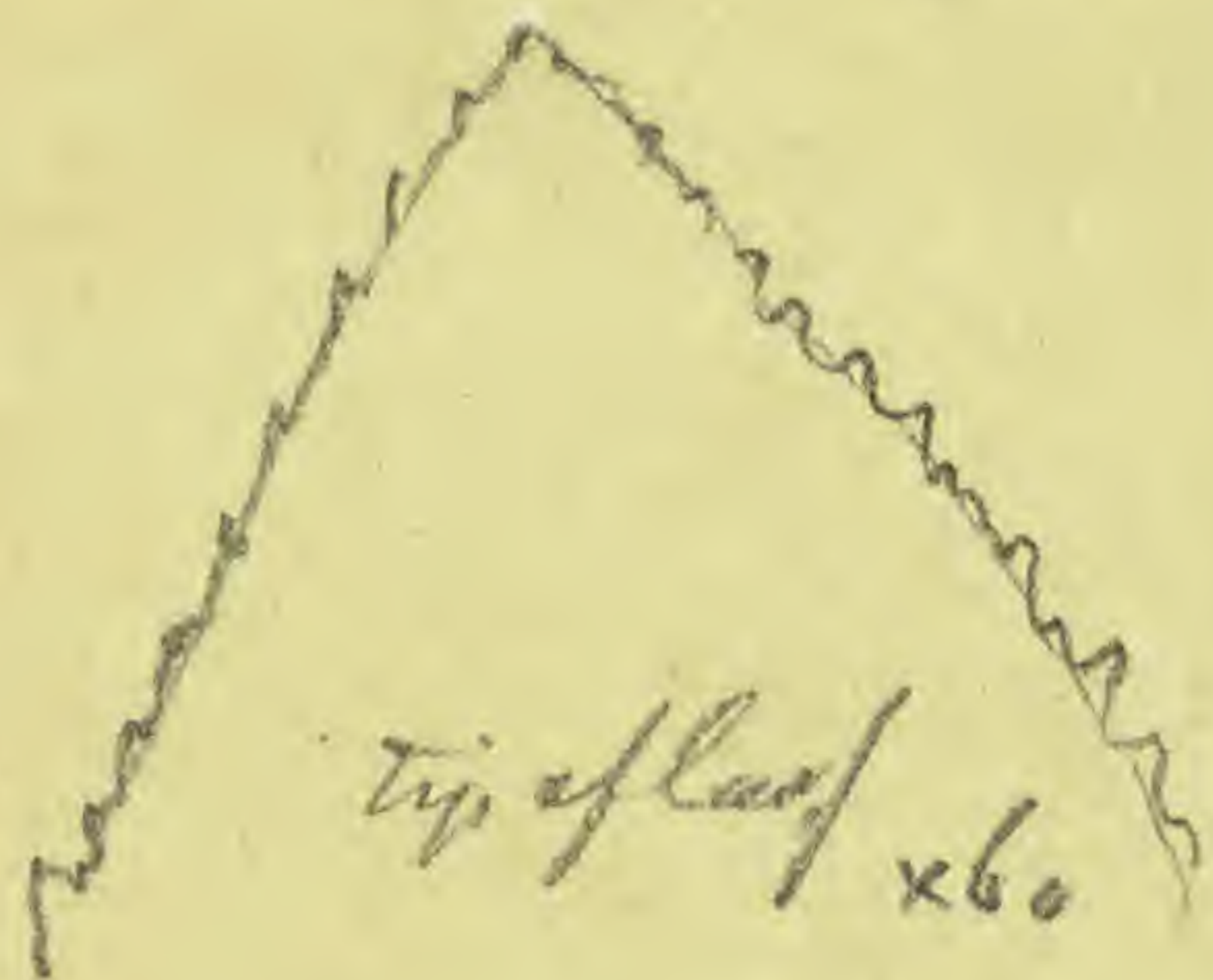


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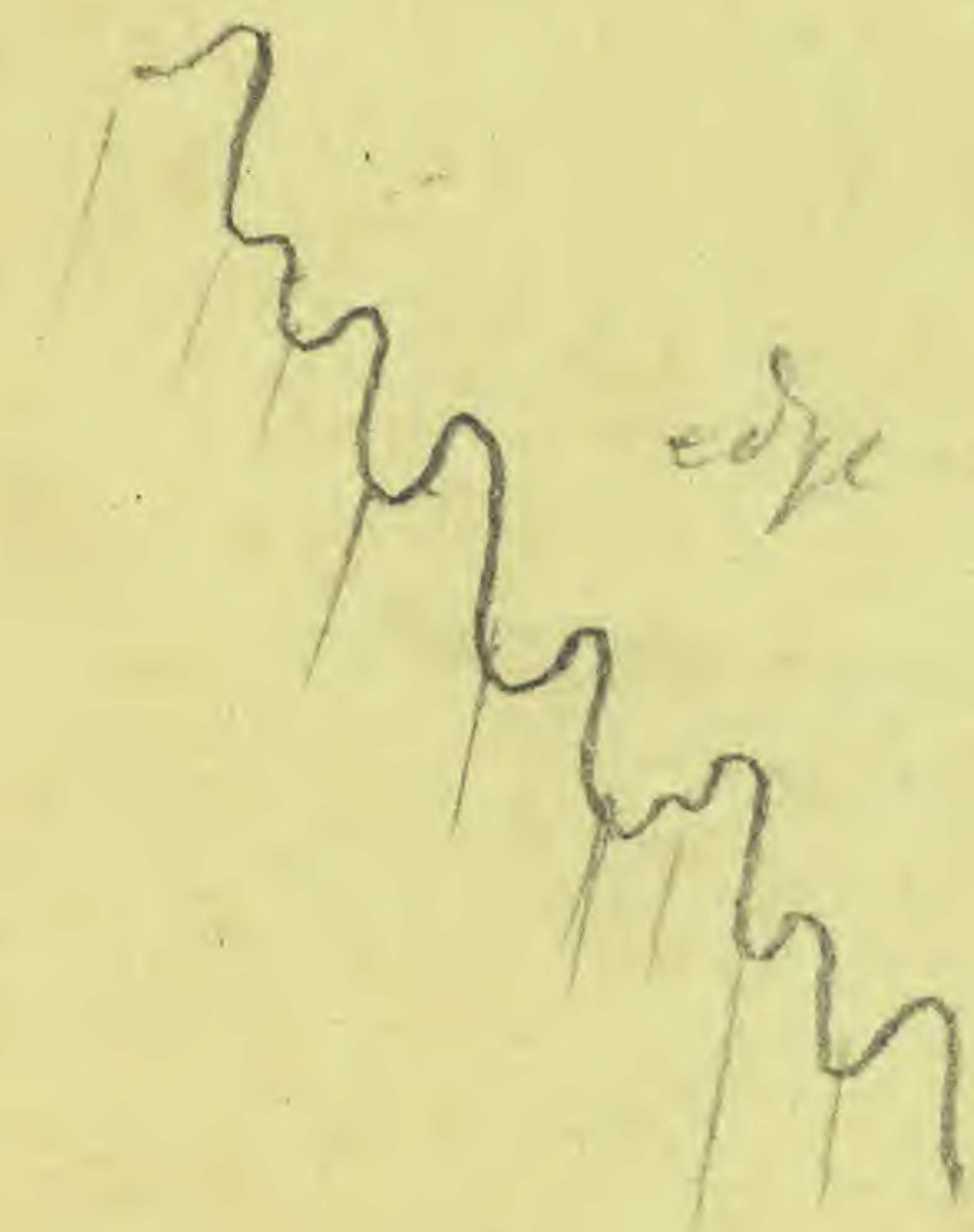
"Juniperus californica" Canine Jan 6 1874

Hort Pallanza 1858 May 16^c

young shoot
x 10



tip of leaf x 60



edge x 280

"Juniperus californica"
for Gordon

young shoot

see in Gubel

110



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Juncus communis

on Crowders' Mountain

(Gaston Co. N Carolina)

found by Dr C L Hunter of
Cottage Home, Lincoln Co., N.C.

a handsome trailing shrub.

(found also by W H Ravenel about Aiken
S.C.)



0 1 2 3 4 5 6 7 8 9 10

cm

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BOTANICAL
GARDEN

St. Louis, September 6th, 1871.

Engelmann Esq

You are hereby notified, that an
annual meeting of the Stockholders of the
Independent Press Association" will be held
at the Office of the "Anzeiger des Westens,"
St. Louis, September 8th, 1871, at 10 o'clock
Your presence is not only expected, but
is respectfully requested.

By Order of the Trustees,

GEORGE ENGELMANN PAPERS

JOHNSON & VAN ZENNER.

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Juniperus Communis

Cambridge Aug 20 1879

sect of leaf

x 30

stomata



dorsal duct



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cm

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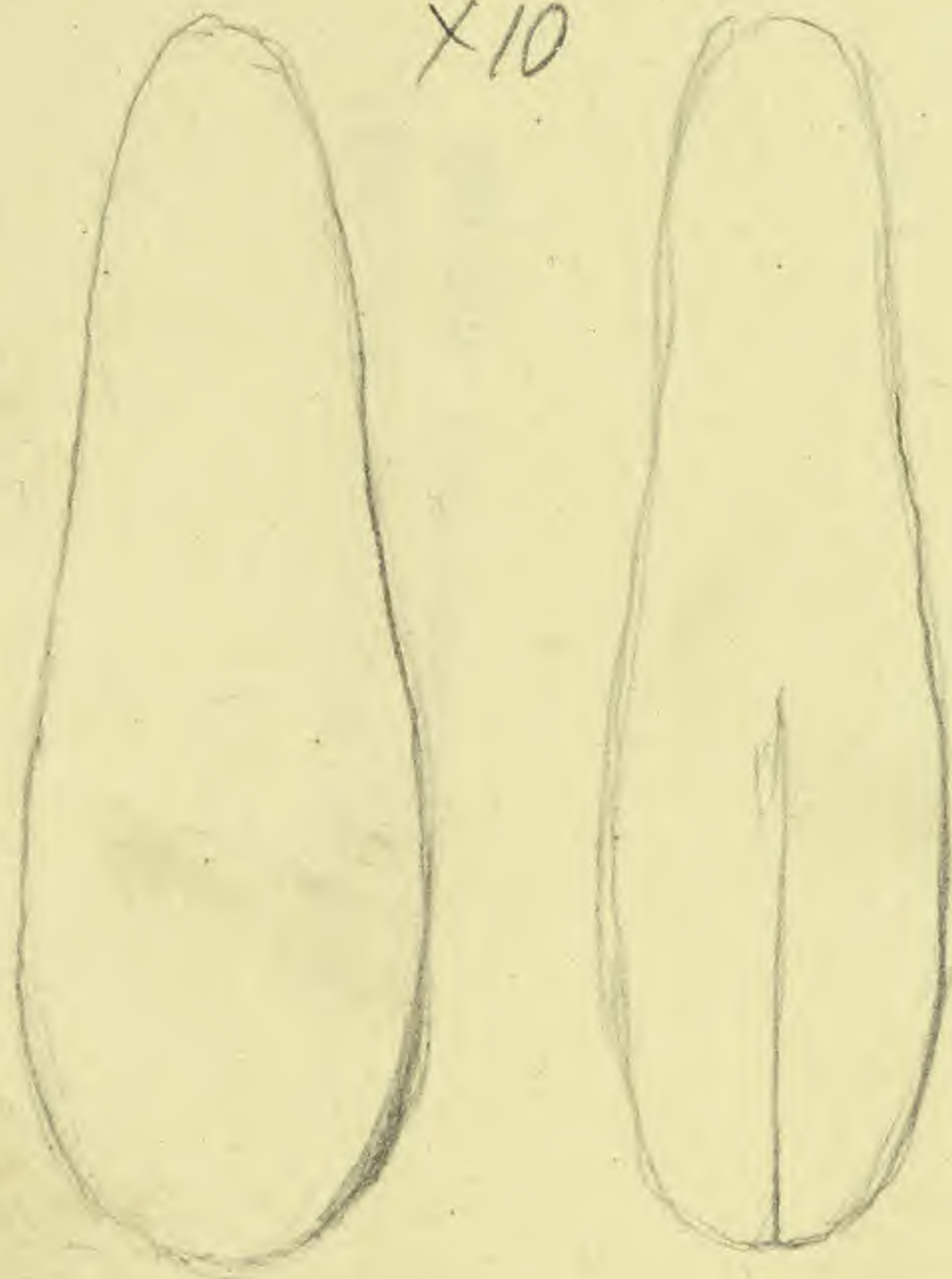
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Juncus. Imparica

Oct 9 1879

Hager & Schmidt's

X10



a single seed cell
albumen & embryo

sect of fruit
nat size

Embryo, compressed
2 cotyled.



0 1 2 3 4 5 6 7 8 9 10

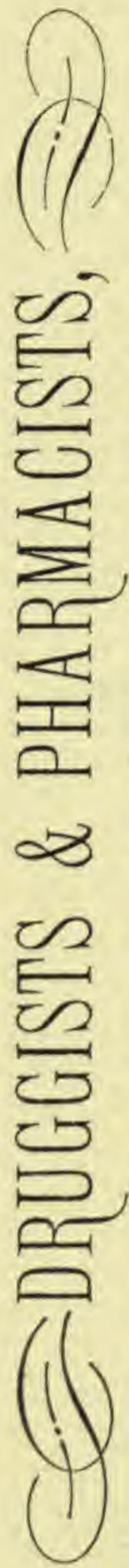
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Pollen x 415

Juniperus Sitchensis

March 29 1874

H.B. Morrison

March 20 1874



♂ in bud

scale x 10

x 10

tip of scale



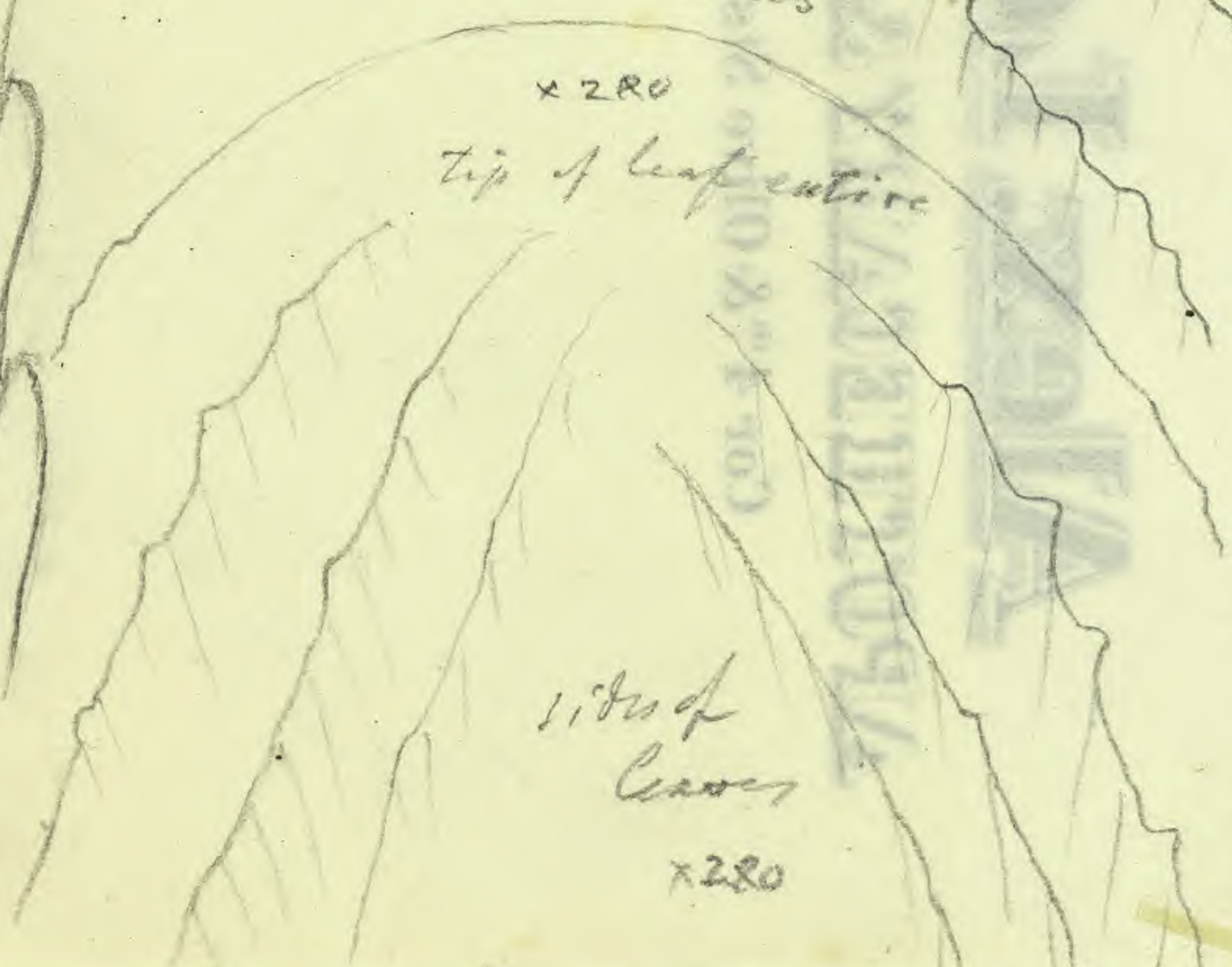
sides

x 280

tip of leaf entire

sides of leaves

x 280



leaves in pairs

ament slightly quadrangular



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cm

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